

*Hypocaccus varians*, Sch., 1890.

This species, first discovered in Japan, and latter in China and Ceylon, has now been found in Australia at Sand Islet, Long Reef. Some examples have the marginal stria of the mesosternum interrupted anteriorly. The Australian specimens are in the British Museum: all have the sutural dorsal stria abbreviated. As its name indicates, its sculpture is extremely variable.

*Hypocaccus apricarius*, Er.

Herr C. Bruch has found this species at Montevideo.

VII.—*Further Additions to the Molluscan Fauna of Central Africa.* By H. B. PRESTON, F.Z.S.

[Plates IV. & V.]

*Helicarion perfragilis*, sp. n. (Fig. 1.)

Shell ovate, thin, transparent, shining, amber-colour; whorls 3, rapidly increasing in size, the last dilated below, marked with indistinct growth-lines; sutures scarcely impressed, very narrowly margined; labrum acute; aperture large, ovate, elongately dilated.

Alt. 4.25, diam. maj. 8.25, diam. min. 6 mm.

Aperture: alt. 4, diam. 5 mm.

*Hab.* Maringo Plateaux, Belgian Congo.

*Thapsia gereti*, sp. n. (Fig. 2.)

Shell discoidal, thin, hyaline, rather opaque, pale greyish white; spire somewhat elevated; whorls  $5\frac{1}{2}$ , marked with transverse growth-lines, which become more noticeable on the base; sutures impressed, narrowly margined; umbilicus narrow, deep; peristome descending very obliquely; labrum simple, acute; aperture obliquely broadly lunate.

Alt. 3, diam. maj. 5.75, diam. min. 5 mm.

Aperture: alt. 2, diam. 2 mm.

*Hab.* Maringo Plateaux, Belgian Congo.

Allied to *T. mixta*, Smith, from Chiradzulu, Nyika Plateau, British Central Africa, but more closely coiled and with the spire more elevated than in that species.

*Subulina maringoensis*, sp. n. (Fig. 3.)

Shell subulate, shining, thin, yellowish horn-colour; whorls 9, somewhat convex, sculptured with fine transverse striæ, which are more marked immediately below the sutures; sutures deeply impressed, crenellate; columella arched, curved, obliquely truncate; labrum acute; aperture inversely auriform.

Alt. 14, diam. maj. 3.5 mm.

Aperture: alt. 2.25, diam. 1.25 mm.

*Hab.* Maringo Plateaux, Belgian Congo.

The species may be compared with *S. octona*, Linn., but is much less blunt at the apex and has considerably more convex whorls.

*Limnaea anceyana*, sp. n. (Fig. 4.)

Shell fusiformly ovate, thin, semitransparent, pale yellowish horn-colour; whorls 5, rapidly increasing in size, the last somewhat laterally contracted, marked irregularly with lines of growth; sutures well impressed; columella descending obliquely, twisted and diffused into a very thin callus which reaches the lip above; labrum acute; aperture elongately ovate.

Alt. 19, diam. maj. 7, diam. min. 5 mm.

Aperture: alt. 9, diam. 5 mm.

*Hab.* Maringo River, Belgian Congo.

*Unio angoniensis*, sp. n. (Fig. 5.)

Shell ovate, slightly angled posteriorly, covered with a blackish-brown laminiferous periostracum; sculptured with closely set, irregular, concentric growth-lines, and posteriorly with curved, transverse, interrupted, slightly nodulous riblets; umbones much eroded, rather large, moderately prominent; dorsal margin somewhat ascending, scarcely arched; ventral margin nearly straight; anterior side abruptly rounded; posterior side sloping above, then angled and descending sharply below; lateral teeth elongate, curved; cardinal tooth in right valve elongate, erect and jagged anteriorly, partially cleft posteriorly; cardinal tooth in left valve somewhat triangular, broad, tuberculous in the middle, erect and jagged at the sides; anterior adductor scars deeply impressed, ovate; posterior adductor scars light; interior of shell nacreous, pink anteriorly, livid bluish posteriorly.

Long. 26, lat. 39 mm.

*Hab.* Angoniland, British Central Africa, to the south of Lake Nyassa.

*Unio charon*, sp. n. (Fig. 6.)

Shell elongately ovate, slightly gaping at both sides, covered with a black periostracum, corrugately sculptured towards the umbonal region and marked below with irregular concentric ridges; umbones eroded, moderately large, not prominent; dorsal margin curved; ventral margin slightly constricted in the middle, otherwise straight; anterior side rather produced, angularly rounded; posterior side elongately produced, sharply rounded; lateral teeth in both valves elongate, curved; cardinal tooth in right valve elongate, rather fine, rising considerably in the middle; cardinal tooth in left valve almost obsolete, serrated anteriorly; anterior adductor scars deep, somewhat square in shape; posterior adductor scars scarcely impressed; interior of shell nacreous, bluish white.

Long. 26.5, lat. 52 mm.

*Hab.* Silongwe, British Central Africa.

*Unio vicinus*, sp. n. (Fig. 7.)

Shell differing from *U. charon* by its narrower form and somewhat more acuminate posterior side, lighter texture, much smoother concentric sculpture, and paler colour, the periostracum being of a pale yellowish-brown colour; the muscular scars are much larger, and, in the case of the anterior adductor, more deeply impressed.

Long. 24, lat. 52 mm.

*Hab.* Silongwe, British Central Africa.

*Unio choziensis*, sp. n. (Fig. 8.)

Shell small, squarely ovate, moderately convex, covered with a blackish-brown periostracum, sculptured with fine concentric striæ and rather coarse, transverse, corrugated ridges, which become finer posteriorly; umbones not prominent; dorsal margin sloping in an anterior direction; ventral margin slightly rounded; anterior side descending somewhat abruptly; posterior side rather acuminate rounded; lateral teeth elongate, straight; cardinal tooth in right valve weak, jagged, erect anteriorly, bifurcate posteriorly; cardinal teeth in left valve elongate, finely jagged, cleft anteriorly; muscular scars deeply impressed anteriorly, scarcely apparent posteriorly; interior of shell iridescent, bluish white.

Long. 16.25, lat. 25 mm.

*Hab.* Chozi River, a tributary of the Chambzi, flowing into Lake Bangweolo from the east.

*Unio gereti*, sp. n. (Fig. 9.)

Shell ovate, somewhat tumid, covered with a dark brown silky periostracum and sculptured with fine rather closely set concentric lines of growth; umbones slightly eroded, prominent; dorsal margin nearly straight; ventral margin scarcely rounded; anterior side angled above, obtusely rounded below; posterior side sloping obliquely, sharply rounded below; lateral teeth short anteriorly, elongately curved posteriorly; anterior cardinal tooth in right valve short, rather square, erect, jagged, incised on the outer side; median cardinal tooth very small; posterior cardinal rather small, projecting; anterior cardinal in left valve bluntly triangular, incised posteriorly; posterior cardinal bifurcate, thus presenting the appearance of a double tooth; anterior adductor scars ovate, well impressed; posterior adductor scars moderately impressed; interior of shell pale bluish white, somewhat iridescent.

Long. 36.5, lat. 61 mm.

*Hab.* Lake Tanganyika.

*Unio mashonae*, sp. n. (Fig. 10.)

Shell elongately ovate, rather tumid, covered with a dark blackish-brown periostracum, sculptured with somewhat coarse and irregular concentric striae, angled posteriorly; umbones rather large, prominent though much eroded; dorsal margin nearly straight; ventral margin almost straight, but very slightly constricted towards the middle; anterior side rounded above, sloping below; posterior side produced, bluntly acuminate; anterior lateral teeth very short; posterior laterals long and coarse; cardinal teeth in right valve wedge-shaped, solid in left valve, broad, serrated; anterior adductor scar ovate, moderately deep; posterior adductor scar narrowly fan-shaped, well impressed; pallial impression coarse, nacreous, pinkish in colour; outer margins of interior of shell nacreous, bluish white.

Long. 80, lat. 37.5 mm.

*Hab.* A sluit about 16 miles from Eukeldoorn, Mashonaland (*Miss Ella Sharpe-Youngs*).

Type in British Museum.

*Unio shirensis*, sp. n. (Fig. 11.)

Shell ovate, moderately tumid, covered with a pale, reddish-brown, rather thin periostracum, which becomes thicker,

foliaceous, and darker in colour posteriorly, both valves sculptured with coarse concentric growth-lines; umbones much eroded, rather small; dorsal margin somewhat arched; ventral margin slightly rounded; anterior side rounded above, sloping below; posterior side bluntly rostrate; anterior lateral teeth very short; posterior laterals long and straight, slightly serrated; cardinal teeth curved, massive, jagged, especially in left valve; anterior adductor scar deeply excavated, squarish; posterior adductor scar irregularly triangular, not deeply impressed; interior of shell iridescent, pale pinkish, shading to bluish white towards the ventral, anterior, and posterior margins.

Long. 21, lat. 37 mm.

*Hab.* Shiré River, at a point from 3 to 4 kilometres to the south of Lake Nyassa (*Mgr. Lechaptois*).

*Mutela opalescens*, sp. n. (Fig. 12.)

Shell moderately thin, irregularly rectangular, posteriorly angled, covered with a thin olive-brown periostracum, sculptured with fine irregular lines of growth and fine, transverse, radiate striæ, which are more apparent anteriorly; umbones eroded, very small, flattish; dorsal margin ascending, anteriorly straight, posteriorly very slightly curved at the top of an almost wing-like expansion; ventral margin scarcely rounded, very slightly constricted towards the middle; anterior side short, descending obliquely, somewhat excavated; posterior side produced below, bluntly rounded; hinge-teeth obsolete; adductor scars moderately impressed; pallæal impression rosy, iridescent pink; outer margins opalescent, the radiate striæ very noticeable in the interior of the shell.

Long. 73, lat. 35 mm.

*Hab.* Shiré River, at a point from 3 to 4 kilometres to the south of Lake Nyassa (*Mgr. Lechaptois*).

In places where the periostracum is lacking, through process of erosion, the shell appears to be highly iridescent.

*Mutela cuneata*, sp. n. (Fig. 13.)

Shell differing from *M. opalescens* by its narrower and more elongate form, much more solid texture, and in the adductor and other scars in both valves being much more deeply impressed; the interior of the shell is more nacreous and presents a finely granular appearance, which is not the case in *M. opalescens*; moreover the transverse striæ do not appear in the interior of the shell as in that species.

Long. (of type specimen) 36, lat. 81 mm.

*Hab.* Karonga, northern end of Lake Nyassa (*Mgr. Lechaptois*).

I have before me a good series of this shell, the largest specimen measuring 42.5 by 97 mm.

*Spatha approximans*, sp. n. (Fig. 14.)

Shell closely allied to *S. nyassensis*, Lea \*, but broader posteriorly, more acuminate, and covered with a periostracum much paler in colour; the interior of the shell is exceedingly finely granulate.

Long. 64, lat. 100 mm.

*Hab.* Shiré River, at a point from 3 to 4 kilometres to the south of Lake Nyassa (*Mgr. Lechaptois*).

*Spatha bertilloniana*, sp. n. (Fig. 15.)

Shell moderately flat, rectangularly ovate, solid, scarcely angled posteriorly, covered with a fine reddish-chestnut periostracum, sculptured with coarse, broad, somewhat distant, concentric growth-lines and very fine, transverse, radiate striæ; umbones small, not prominent; dorsal margin nearly straight, somewhat ascending; ventral margin constricted towards the middle; anterior side squarely rounded; posterior side broadly produced, bluntly acuminate; anterior adductor scars ovate, well impressed; posterior adductor scars broadly ovate, moderately impressed; infra-umbonal visceral scar in right valve broad, in left valve small, short, and deep; pallial margin coarsely defined; interior of shell nacreous, pinkish white, iridescent, especially towards the posterior side, sculptured with fine, interlacing, irregular, wavy striæ converging towards the centre of the shell.

Long. 51.5, lat. 97 mm.

*Hab.* Karonga, north end of Lake Nyassa.

A very handsome species, of which the internal sculpture is most curious and may, in a measure, be compared to the markings of finger-prints; in the single specimen before me this remarkable sculpture is much more apparent in the right than in the left valve.

EXPLANATION OF THE PLATES.

PLATE IV.

Fig. 1. *Helicarion perfragilis*, sp. n.

Fig. 2. *Thapsia gereti*, sp. n.

Fig. 3. *Subulina maringoensis*, sp. n.

\* Proc. Zool. Soc. London, 1877, p. 719.

- Fig. 4. *Limmæa anceyana*, sp. n.  
 Fig. 5. *Unio angoniensis*, sp. n.  
 Fig. 6. — *charon*, sp. n.  
 Fig. 7. — *vicinus*, sp. n.  
 Fig. 8. — *choziensis*, sp. n.  
 Fig. 9. — *gereti*, sp. n.  
 Fig. 10. — *mashoneæ*, sp. n.  
 Fig. 11. — *shirensis*, sp. n.  
 Fig. 12. *Mutela opalescens*, sp. n.

## PLATE V.

- Fig. 13. *Mutela cuneata*, sp. n.  
 Fig. 14. *Spatha approximans*, sp. n.  
 Fig. 15. — *bertilloniana*, sp. n.

VIII.—On a few new Bornean Beetles of the Rutelid Genera  
*Mimela* and *Anomala*. By GILBERT J. ARROW.

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THE British Museum collection contains a very considerable number of species of the great genus *Anomala* from Borneo, few of which have at present been described. Some of the more interesting forms are here characterized and two species of the closely related genus *Mimela* are added. The group of species at the end of this paper form a new section of *Anomala*, distinguished by a sexual difference in the pygidium, of a kind hitherto unknown.

*Mimela pallidicauda*, sp. n.

Læte flava, lævissime æneo-micans, fronte, pronoto (lateribus exceptis), elytris, dorsoque, pygidii apice excepto, saturate viridibus, partibus illis flavo-viridibus, tarsis posticis viridi-æneis; ovata, sat convexa, modice nitida; clypeo lato, crebre punctato, fronte irregulariter punctata; pronoto fortiter, lateribus minus crebre, punctato, marginibus lateralibus post medium fere angulatis, angulis posticis rotundatis; scutello distincte punctato; elytris fortiter seriato-punctatis, interstitio secundo lato, irregulariter punctato; pygidio nudo, fortiter sat crebre punctato; mesosterno haud producto, metasterni lateribus dense punctatis, griseo-pubescentibus, medio lævi; abdomine subtus punctato; tibiis anticis fortiter bidentatis.

Long. 15 mm.; lat. max. 9 mm.

*Hab.* Labuan. Sumatra.

I have seen only two female specimens, the type in the